

roller tappet, is not a valve bridge. A valve bridge operates on the valves, not under the push rods.

As cited by the Examiner, the Perez reference states with respect to FIG. 2: "A first end 107 of the rocker arm 102 has a bearing element 108 juxtaposed with one end 110 of a push rod 112. The other end 114 of the push rod 112 bears against a cam 116 mounted on a camshaft.

Text associated with FIG. 1 of the present application states: "During engine operation, a push rod (not shown) actuates the rocker arm via the push rod cup 60 [Page, 2, Paragraph 7, lines 1-2]." and "The valve bridge 10 when actuated by the rocker arm 40 via the pivot foot 25 will act on a pair of valves, e.g., a pair of intake or exhaust valves (not shown) [Page, 2, Paragraph 6, lines 2-4]."

Thus, a cam follower is not a valve bridge, and the Mallas reference fails to teach a *valve bridge having a pivot rod chamber*, as set forth in independent claims 1 and 14.

B) In the above-captioned Office Action, the Examiner states that Mallas' push rod 10" is a pivot rod and that it pivots in a pivot rod cup that Mallas describes as a socket 68. The push rod of Mallas cannot be considered a pivot rod of the claims for several reasons. The function of the push rod is to push the rocker arm such that rocker arm operates on the valve bridge, which in turn operates on the valves. Thus, the push rod cannot be located between the rocker arm and the valve bridge because it could not provide such functionality. As described in the independent claims, at least a part of the pivot rod head of the pivot rod pivots in a pivot rod cup, which is, for example, shown at a different end of the rocker arm from the push rod cup 60 as illustrated in FIG. 1. Thus, a push rod operates on a different part of the rocker arm than a pivot rod.

Therefore, Mallas fails to teach a *pivot rod comprising a pivot rod head, wherein at least a part of the pivot rod head pivots within the pivot rod cup, and comprising a pivot rod body, wherein at least a part of the pivot rod body pivots in the pivot rod chamber*, as set forth in independent claim 1, and Mallas also fails to teach a *pivot rod comprising a pivot rod head, wherein at least a part of the pivot rod head is pivotable within a pivot rod cup of a rocker arm, and comprising a pivot rod body, wherein at least a part of the pivot rod body pivots in the pivot rod chamber*, as set forth in independent claim 14.

Thus, Mallas fails to teach a pivot rod, a pivot rod cup, a valve bridge having a pivot rod chamber as set forth in independent claims 1 and 14.

Mallas fails to teach all the elements of Independent claims 1 and 14 and is not a proper 35 U.S.C. §102(b) reference. Hence, the applicant respectfully submits that claims 1 and 14 may be passed to allowance.

3. Claims 3, 5, 6, 15, 17 and 18 were rejected under 35 U.S.C. §103(a) given Mallas in view of Perez. Perez also fails to teach the elements of the Independent claims that would be necessary to be combined with Mallas to render the claims obvious.

Thus, the claims of the present invention are not taught or suggested by Mallas and/or Perez. Combining these references fails to teach or yield the invention as claimed. The combination of these references fails to teach or suggest all the elements of the claims. Further, one of skill in the art would not be motivated to make such a combination. Therefore, the present invention is not obvious in light of any combination of Mallas and/or Perez.

Furthermore, claims 2-7, 9, 11-13, and 15-19 are dependent upon an Independent claim that is shown to be allowable. For all these reasons, the dependent claims are themselves allowable.

4. The above response is necessary because it places the application in condition for allowance and was not previously entered because the Examiner first brought the grounds of rejection in the Final Office Action.

5. The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication may advance the prosecution of the present application. Notice of allowance of claims 1-9 and 11-19 is hereby respectfully requested.

Respectfully submitted,

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